

REMARKS

Claims 1 and 3-27 are pending in the application. Claims 1 and 3-27 are rejected. No amendments are submitted with this Reply.

Reply to the Rejection of Claims 1 and 3-27 under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1 and 3-27 as being unpatentable over U.S. Patent No. 6,228,126 to Cimecioglu *et al.* ("Cimecioglu") in view of U.S. Patent No. 5,698,688 to Smith *et al.* ("Smith") or U.S. Patent No. 6,409,881 to Jaschinski ("Jaschinski"). The Examiner has previously stated –

Cimecioglu *et al.* teach aldehyde modified fibers for papermaking use with all the limitations of the claimed fibers. Cimecioglu *et al.* do not implicitly teach the fluffing of such fibers nor the use of the fibers as such, fluffed, for absorbent products. However, Both Smith *et al.* and Jaschinski, as discussed above teach that aldehyde modified fibers can be used as fluff, i.e., the fibers can be fluffed and used in absorbent structures such as diapers, pantliners etc, (fibers used in those applications are fluffed for additional wicking, bulk and fluid retention). Therefore, fluffing Cimecioglu *et al.* fibers for making the incontinent articles as taught by Smith *et al.* would have been obvious to one of ordinary skill in the art, since he/she would have reasonable expectation of success if the fibers are fluffed as taught by Smith *et al.* Note that Cimecioglu *et al.* teach the same degree of aldehyde in the fibers and the same type of additives, i.e., TEMPO and TEMPO derivatives. . . .

. . . . Applicants argue that the combination of the reference is improper, because Smith and Jaschinski teach a different product. This is not convincing because what the secondary reference teach is that cellulose fibers can be aldehyde oxidized, albeit using other process(es), and that the product, i.e., the aldehyde oxidized cellulose fibers, can be used in absorbent products. One of ordinary skill in the art would have reasonable expectation of success if the fibers taught by Cimecioglu *et al.* are used in absorbent structures, since both Smith and Jaschinski teach that aldehyde oxidized fibers can be used in absorbent structures. The examiner is not combining the references of Smith or Jaschinski to obtain a product, but the teaching that aldehyde oxidized fibers can be used in absorbent products. The Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole

would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971).

References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969. In this case, it is very clear from the teachings of the secondary references that the fibers taught by Cimecioglu et al. can be used in fluffed, absorbent structures, see above.

In his Advisory Action of 6 June 2003, the Examiner further states –

The . . . request for reconsideration has been considered but does NOT place the application in condition for allowance because . . . [i]t is examiner's opinion that one of ordinary skill in the art would find obvious to fluff Cimecioglu et al. pulp/fibers to be used in absorbent structures, based in [*sic*, on] the teachings of Smith or Jaschinski. Applicants argue that Smith does not teach Fluffing of the fibers and that mention that aldehyde modified fibers can be used in absorbent products, such as diapers, tampons, etc. only as an external sheet. This is not convincing, for two reasons: a) the liners top and botton [*sic*, bottom] of diapers and/or tampons are, nowadays see for example US 2003/0078556, paragraphs [0051]-[000054], made of a synthetic polymer(s), including cellulosic polymers, such as cellulose acetate, viscose rayon, etc., and usually [*sic*, usually] by either air-laid or just my [*sic*, by] film extrussion [*sic*, extrusion], see attached reference: b) those liner [*sic*, liners] need to be non-absorbent, specially the external liner, so the fluid does not pass through, for the external liner and does not feel wet in the internal liner, if any. Smith teaches that the aldehyde modified web is absorbent, which then one of ordinary skill in the art would realize that the fibers/pulp would have to be used as the absorbent fibers inside of the diaper, tampon or sanitary napkin, probably along, in a mixture, with some Super Absorbent Polymers, SAPs.

For the following reasons, as well those in Applicants' previous Replies, Applicants respectfully traverse the Examiner's rejection of claims 1 and 3-27 as being unpatentable over Cimecioglu in view of Smith or Jaschinski.

As previously noted, Cimecioglu teaches paper that is prepared from aldehyde modified cellulose pulp and the method of making that pulp. As recognized by the Examiner, Cimecioglu makes no teaching or suggestion as to the use of its pulp in absorbent products, nor does Cimecioglu teach or suggest fluffing its modified pulp. Accordingly, as Cimecioglu does not teach or suggest fluffing its pulp, Cimecioglu alone can not be said to teach or suggest modified fluff pulp that has improved wicking rate and capacity, improved structural integrity, and/or improved absorbent capacity.

As previously noted, Smith discloses a two-step process for forming aldehyde-modified cellulosic fibers that includes (1st) esterifying cellulose with an olefin-containing carboxylic acid

or acid derivative, and then (2nd) oxidizing the intermediate cellulosic fiber produced to form the resultant aldehyde-modified cellulosic fiber. According to the invention of Smith, the carboxylic alkene residue is oxidized to form the aldehyde (*see*, col. 6, lines 4-15 and col. 7, lines 30-40; col. 6, lines 26-29). In contrast to Smith, the present invention teaches oxidation of a hydroxyl group to an aldehyde directly on the cellulose. For these reasons, the aldehyde-modified fibers of Smith differ from those fibers of the present invention. Therefore, one of ordinary skill in the art cannot assume that the modified compositions of Cimecioglu will have the absorbent article properties of the present invention in view of Smith, were one skilled in the art motivated to fluff the compositions of Cimecioglu.

Further, Smith does not teach or suggest modified fluff pulp that has improved wicking rate and capacity, improved structural integrity, and/or improved absorbent capacity. Instead, Smith merely suggests that its aldehyde-modified cellulosic fibers can be used in sanitary napkins, tampons, diapers, etc. (note, col. 8, lines 57-59). Accordingly, one skilled in the art, based on the teachings of Smith, would be lead to believe that these modified cellulosic fibers are present in the "sanitary napkins, tampons, diapers, etc." only for wet strength improvements (*see*, e.g., col. 1, lines 12-25; col. 2, lines 15-21; Experimental, col. 9, line 27 – col. 11, line 24).

Smith provides absolutely no teaching or suggestion that its modified fibers would improve the wicking (transportation) rate and capacity of products made with its fibers. Further, Smith provides no teaching or suggestion as to whether its modified fibers improve the absorbent capacity, or absorbency (*i.e.*, total weight fluid absorbed per weight of fluff pulp; *see*, Example 3 of the present application) of paper products made with its fibers. Finally, Smith provides no teaching or suggestion as to whether its modified fibers improve the structural integrity of the fluff pulp (*i.e.*, the ability of the fluff pulp to maintain its shape, e.g., 'spring back' when compressed). Therefore, one skilled in the art looking for a way of improving wicking, structural integrity, and/or absorbency in fluff pulp would not be motivated to turn to the teachings of Cimecioglu and/or Smith, as neither reference provides such teaching. Further, one skilled in the art, having Cimecioglu and Smith before him, would not be lead to believe that simply fluffing the pulp of Cimecioglu would improve the wicking, structural integrity, and/or absorbency of the pulp. Therefore one skilled in the art would not be motivated to use the teachings of Cimecioglu and/or Smith in seeking such a solution.

The Examiner states that Applicants argue that the aldehyde modified fibers of Smith "can be used in absorbent products . . . only as an external sheet." In support of his position, the Examiner refers to U.S. Publication No. 2003/0078556 for teaching that the top and bottom liners of diapers and/or tampons are made of a synthetic polymer(s), including cellulosic polymers such as cellulose acetate, viscose rayon, etc., typically by either air-laid or by film extrusion, and that those liners need to be non-absorbent, especially the external liner, so that fluid does not pass through the external liner and does not feel wet in the internal liner.

Applicants are somewhat confused by this statement as Applicants never stated that the aldehyde-modified fibers of Smith could be used in absorbent products only as an external sheet. Rather, Applicants only stated that Smith merely suggests that its aldehyde-modified cellulosic fibers can be used in sanitary napkins, tampons, diapers, etc. (*contra*, col. 8, lines 57-59), and that these modified cellulosic fibers are present there for wet strength improvements. In fact, Smith teaches that its modified fibers can be used multi-layer or multi-ply construction (col. 9, lines 3-8). Further, U.S. Publication No. 2003/0078556 has a priority date of 24 October 2001. The present application has a priority date of 28 March 2001. Therefore, the '78556 publication does not constitute prior art against the present application.

Because both Cimecioglu and Smith do not teach or suggest modified fluff pulp having improved wicking rate and capacity, structural integrity, and/or absorbent capacity, the presently claimed invention is not made obvious by Cimecioglu in view of Smith. Instead, both Cimecioglu and Smith only teach aldehyde-modified pulp for improving paper strength. For at least these reasons, neither Cimecioglu nor Smith, alone or in combination, render the presently claimed invention obvious.

As previously indicated, Jaschinski provides no teaching regarding improved wicking rate and wicking capacity, structural integrity, absorbent capacity, and/or odor absorption. For at least these reasons, in light of the arguments presented above, neither Cimecioglu nor Jaschinski, alone or in combination, teach or suggest the presently claimed invention.

It is believed that these remarks, as well as those previously submitted, overcome the Examiner's rejection of claims 1 and 3-27 as being unpatentable over Cimecioglu in view of Smith or Jaschinski under 35 U.S.C. § 103(a). Withdrawal of the rejection is respectfully

requested. Allowance of the claims is believed to be in order, and such allowance is respectfully requested.

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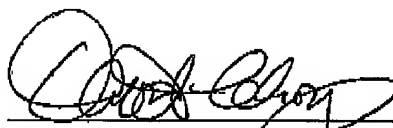
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